Comparison of MetAP2 Homologues (mouse = SEQ ID NO:13; rat = SEQ ID NO:17; human = SEQ ID NO:12; yeast = SEQ ID NO:14)

```
      1            15 16           30 31           45 46           60 61           75 76           90
mouse MAGVEQAASFGGHLN GDLDPDDREEGTSST AEEAAKKKRRKKKKG KGAVSAVQQELDKES GALVDEVAKQLESQA LEEKERDDDDEDGDG    90
rat   MAGVEEASSFGGHLN RDLDPDDREEGTSST AEEAAKKKRRKKKKG KGAVSAGQQELDKES GTSVDEVAKQLERQA LEEKEKDDDDEDGDG    90
human MAGVEEVAASGSHLN GDLDPDDREEGAAST AEEAAKKKRRKKKKS KGPSAAGEQEPDKES GASVDEVARQLERSA LEDKERDEDDEDGDG    90
yeast --------------- --------------- --------------- -------MTDAEIEN SPASDLKELNLENEG VEQQDQAKADESDPV    38

      91          105 106         120 121         135 136         150 151         165 166         180
mouse DADGATGKKKKKKKK KRGPKVQTDPPSVPI CDLYPNGVFPKGQEC EYPPTQDGRTAAWRT TSEEKKALDQASEEI WNDFREAAEAHRQVR   180
rat   DGDGAAGKKKKKKKK KRGPRVQTDPPSVPI CDLYPNGVFPKGQEC EYPPTQDGRTAAWRT TSEEKKALDQASEEI WNDFREAAEAHRQVR   180
human DGDGATGKKKKKKKK KRGPKVQTDPPSVPI CDLYPNGVFPKGQEC EYPPTQDGRTAAWRT TSEEKKALDQASEEI WNDFREAAEAHRQVR   180
yeast ESKKKKNKKKKKKKS N----------VKKI ELLFPDGKYPEGAWM DYHQDFNLQRTTDEE SRYLKRDLERA--EH WNDVRKGAEIHRRVR   116

      181         195 196         210 211         225 226         240 241         255 256         270
mouse KYVMSWIKPGMTMIE ICEKLEDCSRKLIKE NGLNAG-------LA FPTGCSLNNCAAHYT PNAGDTTVLQYDDIC KIDFGTHISGRIIDC   263
rat   KYVMSWIKPGMTMIE ICEKLEDCSRKLIKE NGLNAG-------LA FPTGCSLNNCAAHYT PNAGDTTVLQYDDIC KIDFGTHISGRIIDC   263
human KYVMSWIKPGMTMIE ICEKLEDCSRKLIKE NGLNAG-------LA FPTGCSLNNCAAHYT PNAGDTTVLQYDDIC KIDFGTHISGRIIDC   263
yeast RAIKDRIVPGMKLMD IADMIENTTRKYTGA ENLLAMEDPKSQGIG FPTGLSLNHCAAHFT PNAGDKTVLKYEDVM KVDYGVQVNGNIIDS   206

      271         285 286         300 301         315 316         330 331         345 346         360
mouse AFTVTFNPKYDILLT AVKDATNTGIKCAGI DVRLCDVGEAIQEVM ESYEVEIDGKTYQVK PIRNLNGHSIGPYRI HAGKTVPIVKGGEAT   353
rat   AFTVTFNPKYDILLK AVKDATNTGIKCAGI DVRLCDVGEAIQEVM ESYEVEIDGKTYQVK PIRNLNGHSIGPYRI HAGKTVPIVKGGEAT   353
human AFTVTFNPKYDTLLK AVKDATNTGIKCAGI DVRLCDVGEAIQEVM ESYEVEIDGKTYQVK PIRNLNGHSIGQYRI HAGKTVPIVKGGEAT   353
yeast AFTVSFDPQYDNLLA AVKDATYTGIKEAGI DVRLTDIGEAIQEVM ESYEVEINGETYQVK PCRNLCGHSIAPYRI HGGKSVPIVKNGDTT   296

      361         375 376         390 391         405 406         420 421         435 436         450
mouse RMEEGEVYAIETFGS TGKGVVHDDMECSHY MKNFDVGHVPIRLPR TKHLLNVINENFGTL AFCRRWLDRLGESKY LMALKNLCDLGIVDP   443
rat   RMEEGEVYAIETFGS TGKGVVHDDMECSHY MKNFDVGHVPIRLPR TKHLLNVINENFGTL AFCRRWLDRLGESKY LMALKNLCDLGIVDP   443
human RMEEGEVYAIETFGS TGKGVVHDDMECSHY MKNFDVGHVPIRLPR TKHLLNVINENFGTL AFCRRWLDRLGESKY LMALKNLCDLGIVDP   443
yeast KMEEGEHFAIETFGS TGRGYVTAGGEVSHY ARSAEDHQVMPTLDS AKNLLKTIDRNFGTL PFCRRYLDRLGQEKY LFALNNLVRHGLVQD   386

      451         465 466         480
mouse YPPLCDIKGSYTAQF EHTILLRPTCKEVVS RGDDY--    478
rat   YPPLCDIKGSYTAQF EHTILCAQPVKKLSA EEMTIKT    480
human YPPLCDIKGSYTAQF EHTILLRPTCKEVVS RGDDY--    478
yeast YPPLNDIPGSYTAQF EHTILLHAHKKEVVS KGDDY--    421
```

Figure 1

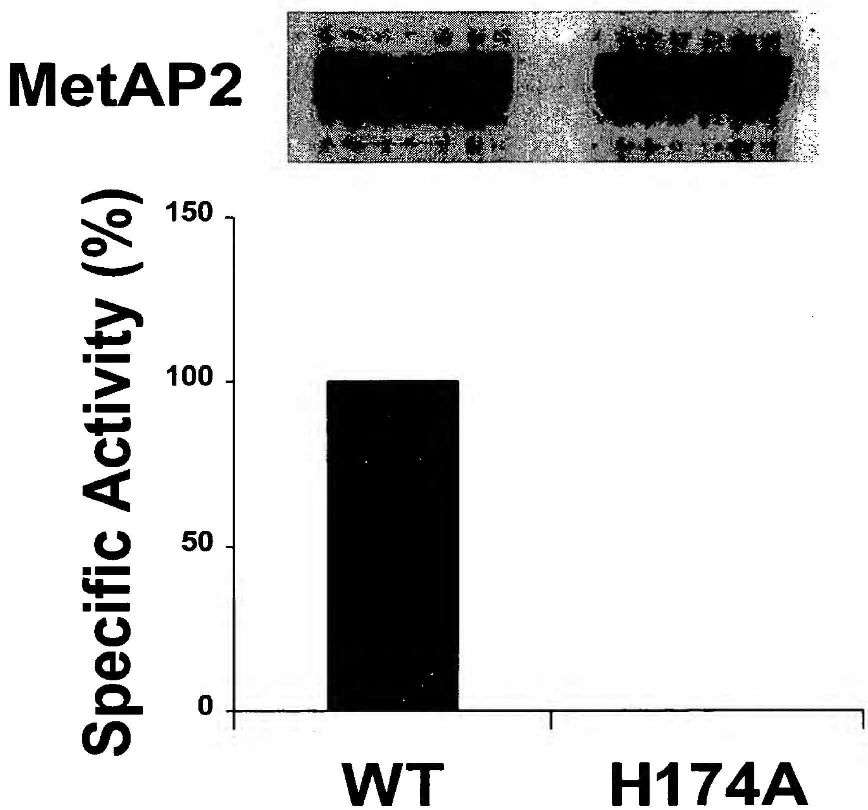
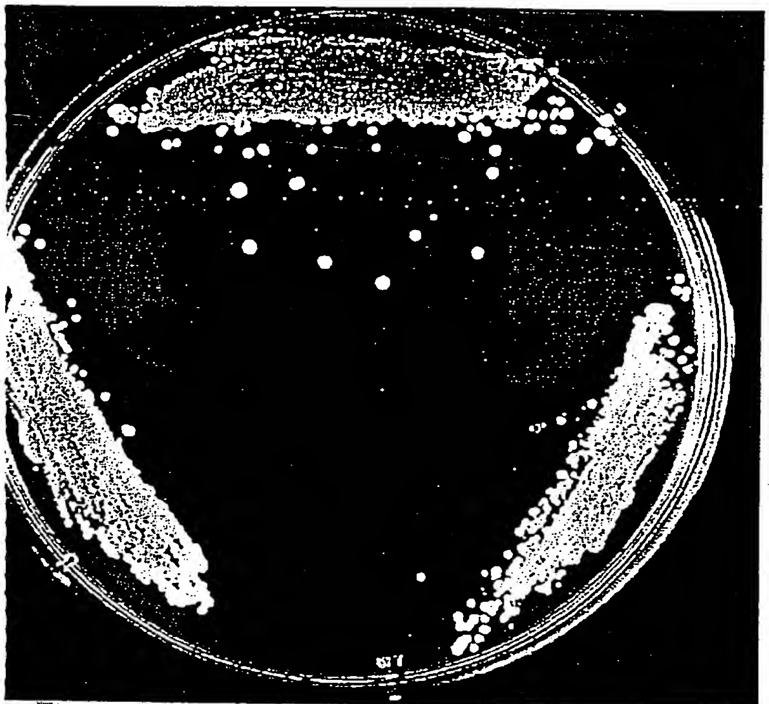
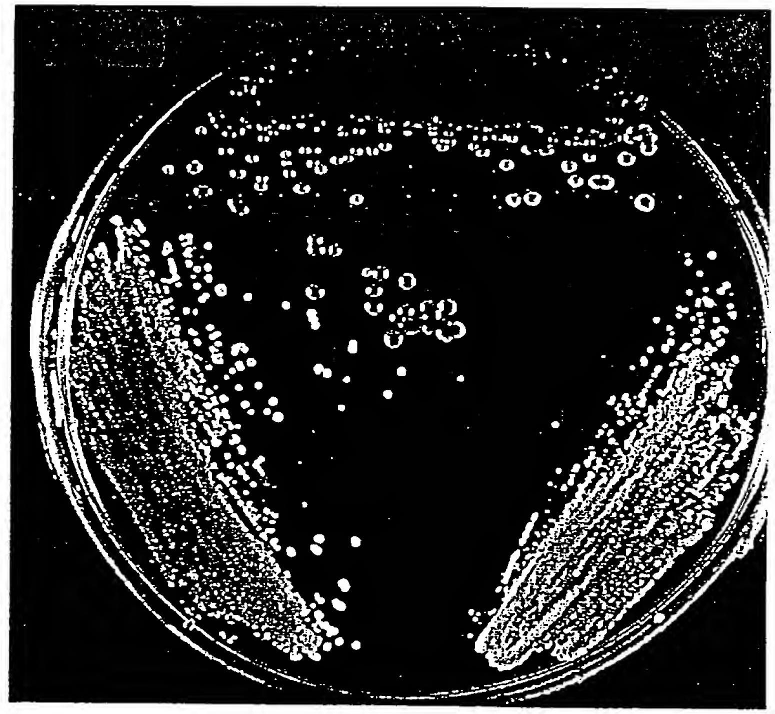


Figure 2



A. Glucose



B. Galactose

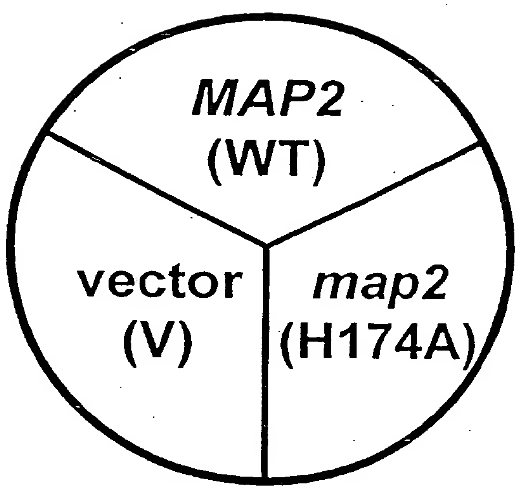


FIGURE 3

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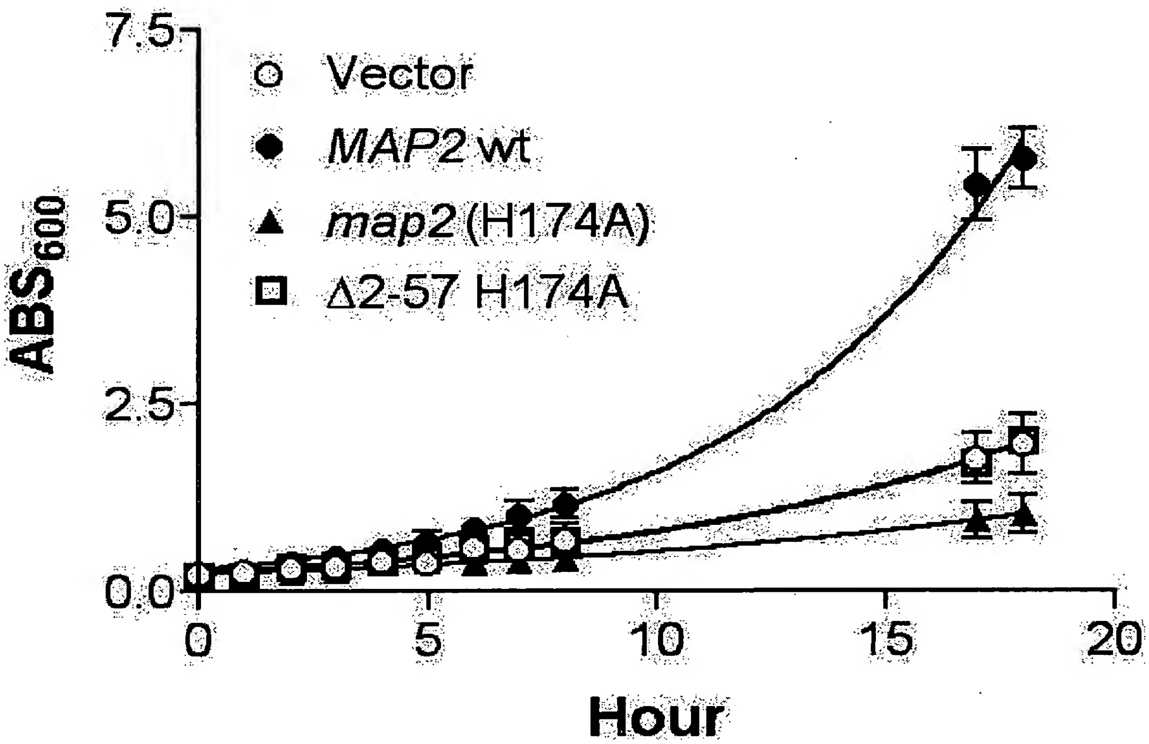
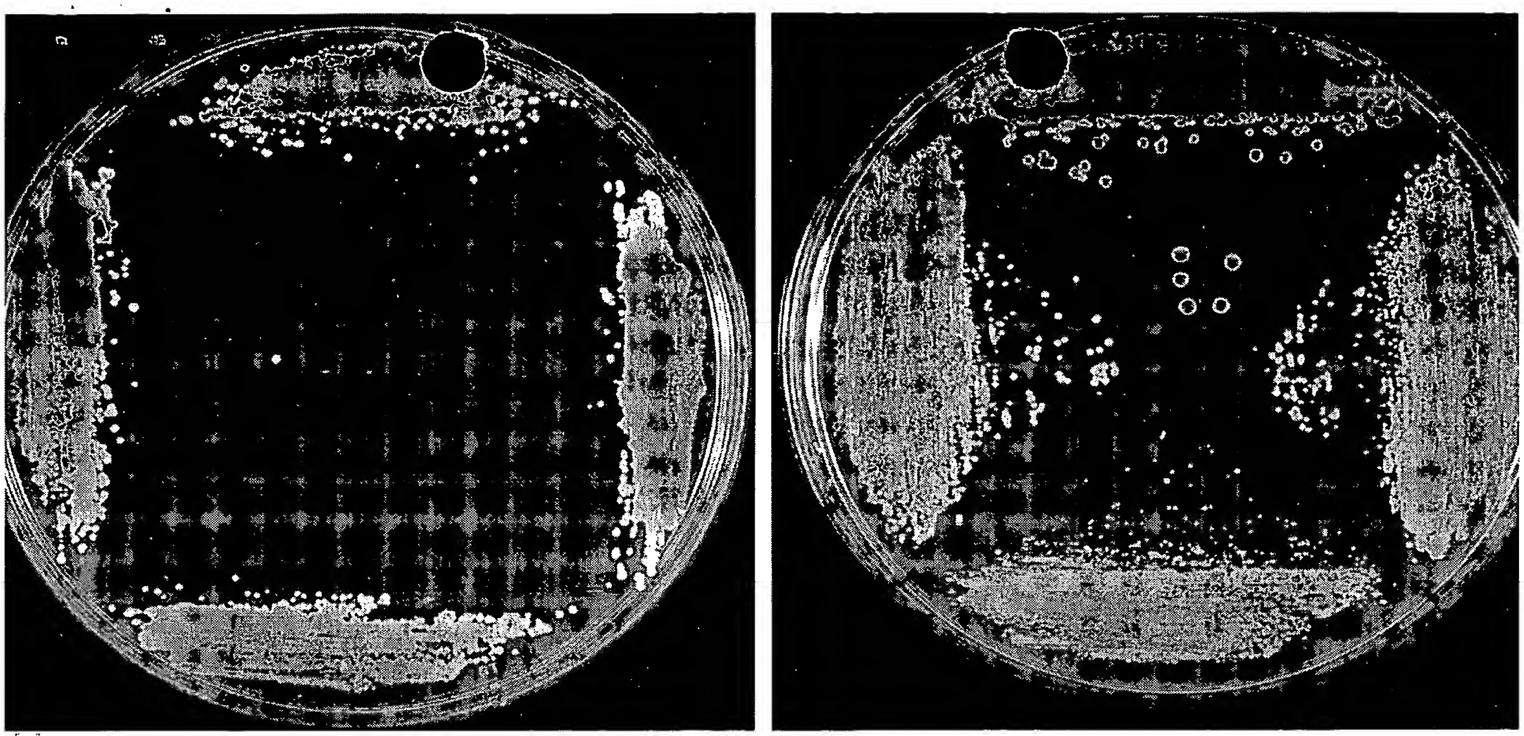
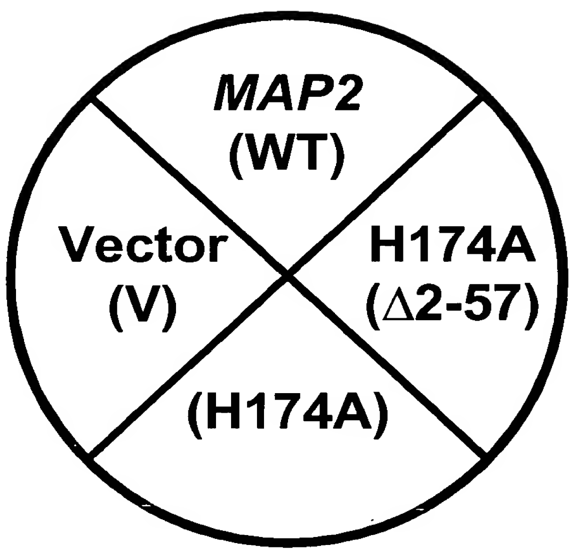


Figure 4



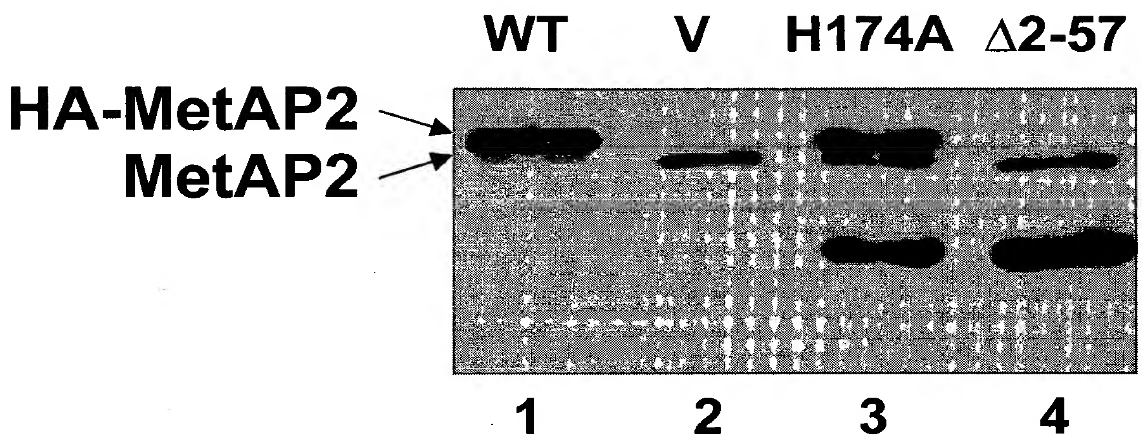
A. Glucose

B. Galactose



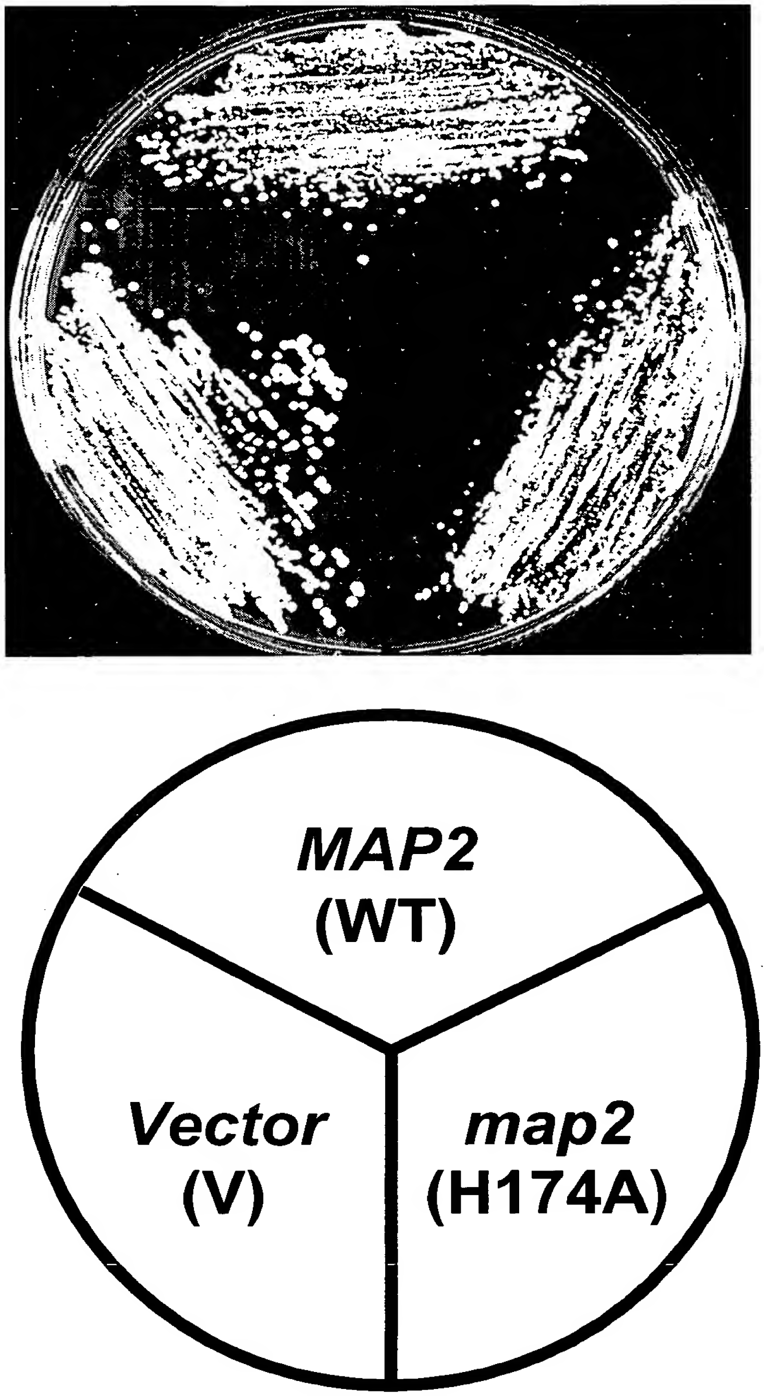
H174A-MetAP2 requires N-terminal residues 2-57 for inhibition of map1Δ growth under the GAL1 promoter.

Figure 5



The steady state levels of each MetAP2 construct are comparable. Immunoblot comparison of HA-MetAP2 wt, HA-MetAP2 H174A, and MetAP2 Δ2-57 H174A steady state levels in map1Δ.

Figure 6



Overexpression of H174A-MetAP2 under the GPD promoter does not inhibit the growth of map2Δ

Figure 7

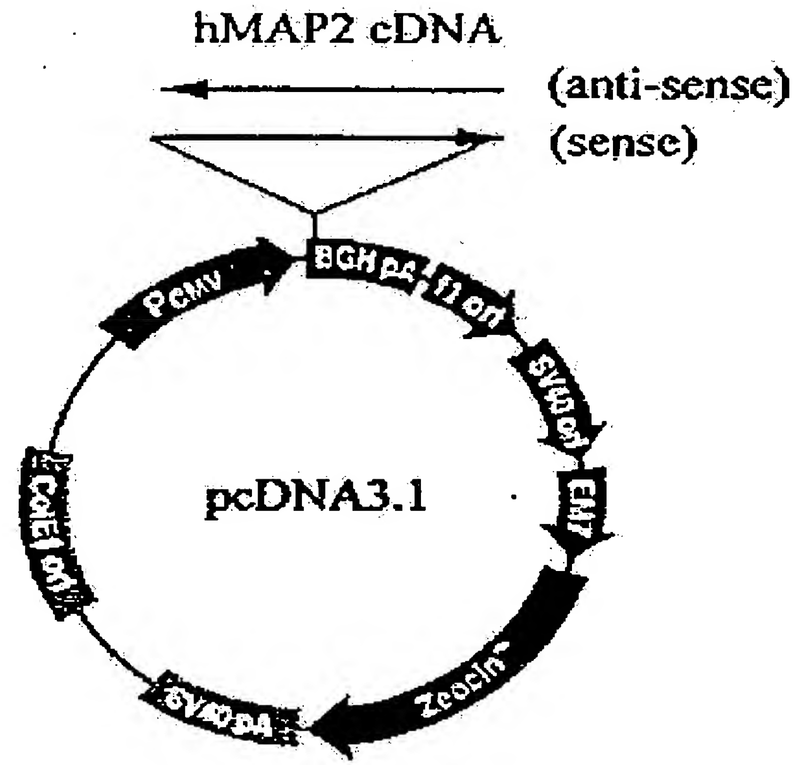

hMAP2 cDNA
(anti-sense)
(sense)
BGH pA
f1 ori
SV40 ori
EM7
Zeocin
SV40 pA
ColE1 ori
Pcmv
pcDNA3.1

Figure 8

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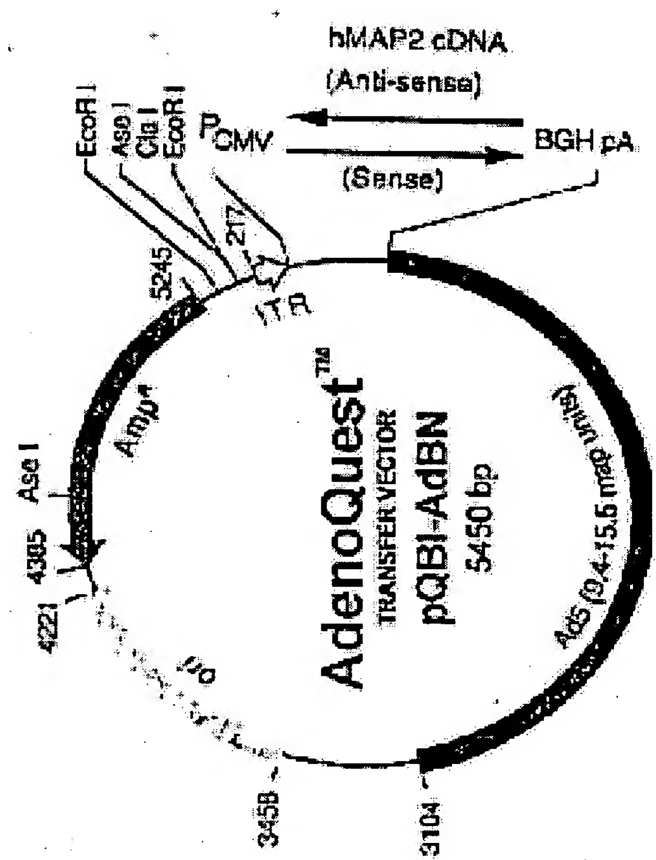
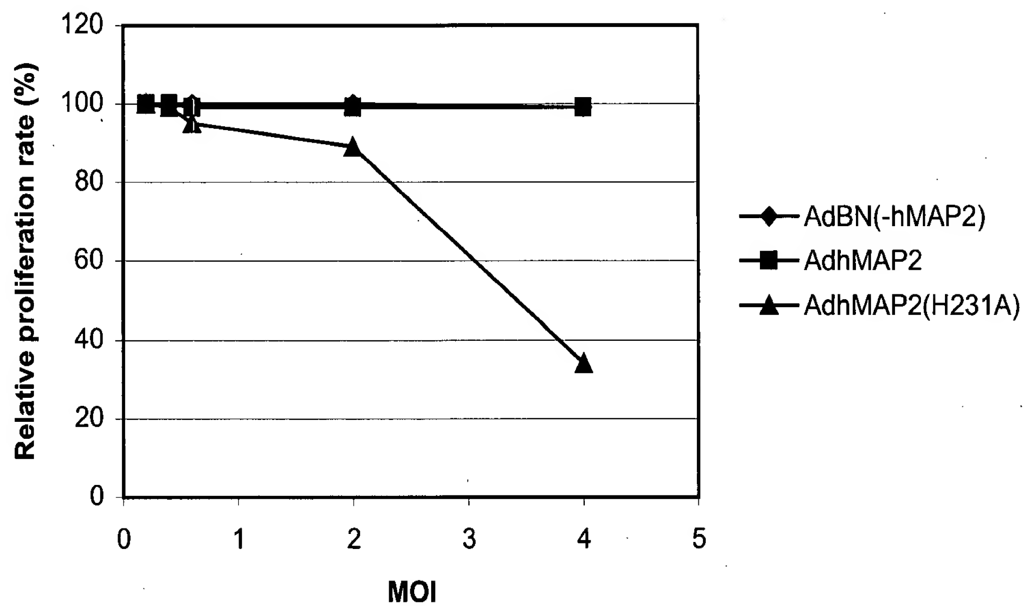


Figure 9



Relative proliferation rate (%)
120
100
80
60
40
20
0
0
1
2
3
4
5
MOI
AdBN(-hMAP2)
AdhMAP2
AdhMAP2(H231A)

Figure 10

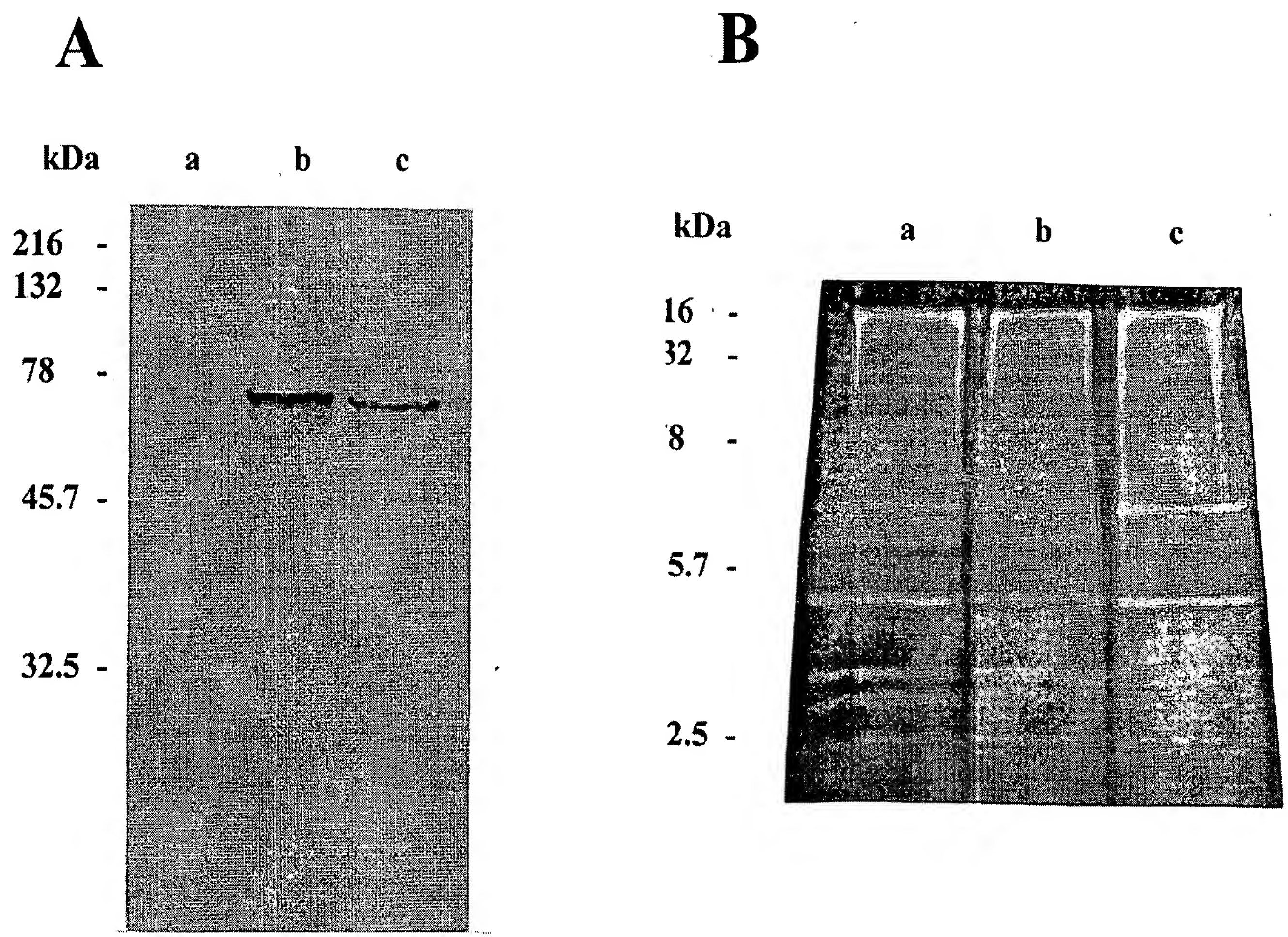


Figure 11